Pairwise Spearman rho of t−statistics (Karpievitch et al. 2012)

Higher = methods rank proteins more similarly

Cancer_vs_Healthy

	vsn_knn	rlr_knn	cycloess_knn	vsn_RF	rlr_RF	cycloess_RF	vsn_bpca	rlr_bpca	cycloess_bpca	vsn_none	rlr_none	cycloess_none
vsn_knn	0.961	0.968	0.986	0.957	0.964	0.986	0.961	0.968	0.991	0.971	0.977	1.000
rlr_knn	0.977	0.981	0.964	0.979	0.985	0.969	0.983	0.990	0.973	0.992	1.000	0.977
cycloess_knn	0.984	0.975	0.957	0.987	0.981	0.964	0.991	0.985	0.967	1.000	0.992	0.971
vsn_RF	0.967	0.972	0.991	0.970	0.976	0.996	0.973	0.979	1.000	0.967	0.973	0.991
rlr_RF	0.983	0.985	0.968	0.991	0.997	0.977	0.994	1.000	0.979	0.985	0.990	0.968
cycloess_RF	0.989	0.979	0.961	0.997	0.991	0.972	1.000	0.994	0.973	0.991	0.983	0.961
vsn_bpca	0.963	0.968	0.986	0.975	0.980	1.000	0.972	0.977	0.996	0.964	0.969	0.986
rlr_bpca	0.980	0.982	0.965	0.994	1.000	0.980	0.991	0.997	0.976	0.981	0.985	0.964
cycloess_bpca	0.985	0.975	0.957	1.000	0.994	0.975	0.997	0.991	0.970	0.987	0.979	0.957
vsn_none	0.972	0.980	1.000	0.957	0.965	0.986	0.961	0.968	0.991	0.957	0.964	0.986
rlr_none	0.992	1.000	0.980	0.975	0.982	0.968	0.979	0.985	0.972	0.975	0.981	0.968
cycloess_none	1.000	0.992	0.972	0.985	0.980	0.963	0.989	0.983	0.967	0.984	0.977	0.961

Supplement_Interaction

	vsn_knn	rlr_knn	cycloess_knn	vsn_RF	rlr_RF	cycloess_RF	vsn_bpca	rlr_bpca	cycloess_bpca	vsn_none	rlr_none	cycloess_none
vsn_knn	0.866	0.868	0.968	0.842	0.836	0.959	0.873	0.855	0.982	0.892	0.869	1.000
rlr_knn	0.920	0.956	0.847	0.942	0.968	0.858	0.953	0.985	0.863	0.964	1.000	0.869
cycloess_knn	0.959	0.943	0.867	0.961	0.938	0.874	0.983	0.953	0.884	1.000	0.964	0.892
vsn_RF	0.874	0.872	0.977	0.872	0.862	0.984	0.896	0.874	1.000	0.884	0.863	0.982
rlr_RF	0.922	0.955	0.850	0.963	0.987	0.875	0.969	1.000	0.874	0.953	0.985	0.855
cycloess_RF	0.962	0.944	0.873	0.985	0.960	0.893	1.000	0.969	0.896	0.983	0.953	0.873
vsn_bpca	0.855	0.856	0.954	0.897	0.889	1.000	0.893	0.875	0.984	0.874	0.858	0.959
rlr_bpca	0.901	0.933	0.831	0.978	1.000	0.889	0.960	0.987	0.862	0.938	0.968	0.836
cycloess_bpca	0.935	0.922	0.844	1.000	0.978	0.897	0.985	0.963	0.872	0.961	0.942	0.842
vsn_none	0.901	0.896	1.000	0.844	0.831	0.954	0.873	0.850	0.977	0.867	0.847	0.968
rlr_none	0.974	1.000	0.896	0.922	0.933	0.856	0.944	0.955	0.872	0.943	0.956	0.868
cycloess_none	1.000	0.974	0.901	0.935	0.901	0.855	0.962	0.922	0.874	0.959	0.920	0.866

Training_CR

	cycloess_none	rlr_none	vsn_none	cycloess_bpca	rlr_bpca	vsn_bpca	cycloess_RF	rlr_RF	vsn_RF	cycloess_knn	rlr_knn	vsn_knn
vsn_knn	0.901	0.886	0.935	0.889	0.862	0.926	0.922	0.895	0.963	0.957	0.925	1.000
rlr_knn	0.897	0.916	0.876	0.916	0.930	0.877	0.944	0.962	0.900	0.975	1.000	0.925
cycloess_knn	0.924	0.913	0.899	0.928	0.908	0.895	0.960	0.942	0.925	1.000	0.975	0.957
vsn_RF	0.923	0.906	0.959	0.934	0.906	0.972	0.959	0.929	1.000	0.925	0.900	0.963
rlr_RF	0.916	0.937	0.898	0.957	0.974	0.916	0.979	1.000	0.929	0.942	0.962	0.895
cycloess_RF	0.949	0.938	0.926	0.974	0.954	0.939	1.000	0.979	0.959	0.960	0.944	0.922
vsn_bpca	0.883	0.873	0.921	0.965	0.943	1.000	0.939	0.916	0.972	0.895	0.877	0.926
rlr_bpca	0.877	0.901	0.863	0.981	1.000	0.943	0.954	0.974	0.906	0.908	0.930	0.862
cycloess_bpca	0.912	0.902	0.893	1.000	0.981	0.965	0.974	0.957	0.934	0.928	0.916	0.889
vsn_none	0.965	0.947	1.000	0.893	0.863	0.921	0.926	0.898	0.959	0.899	0.876	0.935
rlr_none	0.981	1.000	0.947	0.902	0.901	0.873	0.938	0.937	0.906	0.913	0.916	0.886
cycloess_none	1.000	0.981	0.965	0.912	0.877	0.883	0.949	0.916	0.923	0.924	0.897	0.901

Spearman rho

1.00

0.96

0.92

0.88

0.84

Concordance At the Top (CAT) − each method vs consensus ranking

Irizarry et al. (2005) | Dashed line = 0.70 concordance

DEP counts per method per contrast (FDR < 0.05)

Cancer_vs_Healthy

250
0
−250

Supplement_Interaction

1.00
0.75
0.50
0.25
0.00

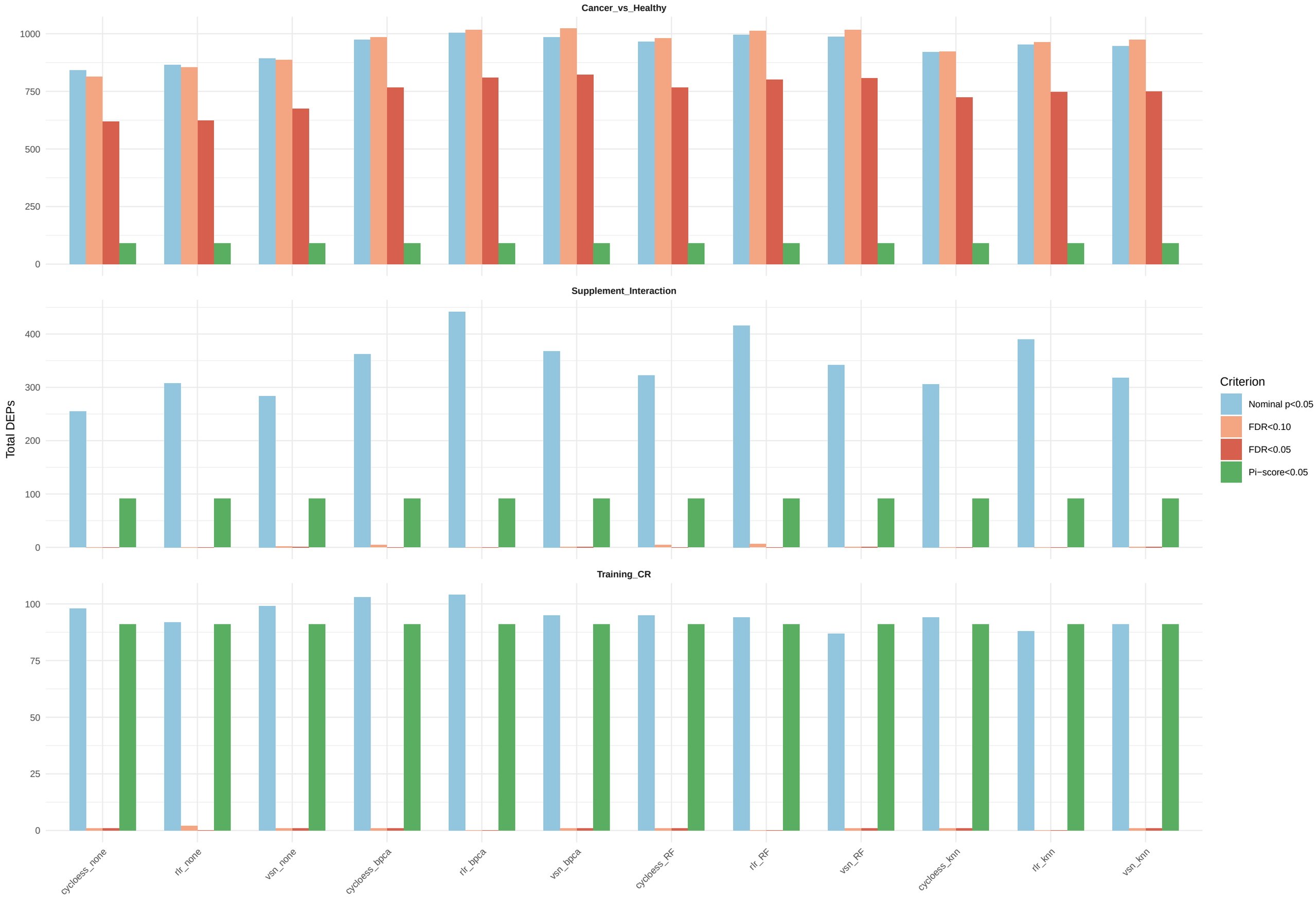
Training_CR

1.00
0.75
0.50
0.25
0.00

DEP count (up / down)

Direction
Down
Up

cycloess_none
rlr_none
vsn_none
cycloess_bpca
rlr_bpca
vsn_bpca
cycloess_RF
rlr_RF
vsn_RF
cycloess_knn
rlr_knn
vsn_knn

DEP counts across significance criteria

Pi−score = −log10(p) x |logFC| (Xiao et al. 2014); empirical p−value < 0.05